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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/030,099

01/16/2002

Keizaburo Matsumoto

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01/19/2007

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EXAMINER

DICUS, TAMRA

ART UNIT

PAPER NUMBER

1774

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/030,099

**Applicant(s)**

MATSUMOTO, KEIZABURO

**Examiner**

Tamra L. Dicus

**Art Unit**

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 10 and 12 is/are rejected.
- 7) ☐ Claim(s) 7, 8 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10-6-06.

- 4) ☒ Interview Summary (PTO-113)  
Paper No(s)/Mail Date. 11/26/07
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 9-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,829,790 to Phillips in view of USPN 6,214,449 to Otani et al.

Phillips teaches a greeting card (printed matter) comprising a paper sheet 12 of an ink jet printed with a color ink jet printer (col. 1, line 45-46) (variable information is formed). See col. 2, line 29. The greeting card can be preprinted lithographically with any desired theme (col. 3, lines 15-20) (print film containing fixed information printed). Further, that a print film is printed by various printing methods (lithographic, intaglio, relief of instant claim 1 and ink jet printing of instant claim 9) is a process limitation in a product claim and afforded little patentable weight. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698. Thus, Applicant’s article and the prior art article is the same.

Phillips does not teach one or two receiving layers comprising an ink-absorbing and ink-fixing resin as per instant claims 1, 3-5 nor the additional ink over the receiving layer(s) as claim 10 recites. Phillips as cited above, already teaches lithographic ink print on paper (claim 10).

Otani teaches coating (claims 10 and 12) two ink receiving layers (col. 3, lines 25-28) containing cellulose, polyvinyl alcohol (col. 4, lines 14-25) (ink-absorbing additive) and cationic dye fixing agents (col. 4, lines 27-31). Further additives include fillers of UV absorbents, pigments, and fluorescent dyes (col. 4, lines 33-37). Otani teaches water based ink jet ink is recorded on the paper having ink receiving layers to form an image thereon (col. 1, lines 1-10).

It would have been obvious to one of ordinary skill in the art to modify the greeting card of Phillips to further include one or two receiving layers comprising cellulose, fillers, and ink-fixing agents because Otani teaches the inclusion of said layers provides ink absorbency, high image density, high surface strength and reduction in cost can be attained (col. 3, lines 24-29). The inclusion of aforesaid ink-absorbing, ink-fixing, and fillers are conventionally added to effect the image density (col. 4, lines 15-68 of Otani). Ink is on the paper having ink-receiving layers to form an image. Thus, the combination results in the same instant invention.

Further to claims 10 and 12, Phillips and Otani do not teach the methods of an in-line system or anilox rollers for forming the layers. However, the processes of forming the layers are process limitation in a product claim and afforded little patentable weight.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,829,790 to Phillips in view of USPN 6,214,449 to Otani et al., and further in view of USPN 6,708,612 to Schmid.

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Phillips and Otani, relied upon above, do not teach the use of an in-line system or anilox rollers as per instant claims 10 and 12.

Schmid teaches a printing machine for printing sheets receiving ink using an in-line operation, ink jet printers, and anilox rollers (col. 2, lines 35-40, 60-65, and col. 4, lines 23-25). Schmid discovered this machine allows two inks to be printed from two different printing machines at the same time (col. 4, lines 50-55).

It would have been obvious to one of ordinary skill in the art to modify the combination of Phillips and Otani because Schmid teaches the use of ink jet printers and anilox rollers in an in-line system for the purpose of printing paper successively with different colors (col. 3, lines 55-56 and col. 4, lines 51-55 of Schmid).

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,829,790 to Phillips in view USPN 6,214,449 to Otani et al., and further in view of USPN 6,830,329 to Iwata.

Phillips and Otani, relied upon above, do not teach the use of an in-line system or anilox and rubber rollers as per instant claims 10 and 12.

Iwata teaches an image was formed on the obtained recording medium by means of an ink-jet printer thereafter, the ink-receiving layer processed through a steel and rubber roll in order to bond an ink-receiving layer to produce a finished printed article. While Iwata does not explicitly teach an "anilox" roll, the steel roll is functionally equivalent to an anilox roll, as both are capable of processing ink and ink-receiving layers.

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It would have been obvious to one of ordinary skill in the art to have modified the combination to form ink-receiving layers via two rolls, namely anilox and rubber, because Iwata teaches it is known to produce ink-receiving layers through such rolls in order to bond an ink-receiving layer to produce a finished printed article (col. 3, lines 1-21 and col. 8, lines 34-35).

### ***Allowable Subject Matter***

Claims 7-8 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The applied prior art does not teach a receiving layer comprising a layer adjoining the printing ink film of the oil-based ink and containing different ingredients, wherein the layer adjoining the printing ink film of the oil-based ink contains a film-forming acrylic resin obtained by emulsion polymerizing monomers containing 15% by weight or more of a methacrylic ester compound containing an alkyl group having 8 to 18 carbon atoms as recited in instant claims 7 and 11, wherein instant claim 11 is directed to a method for producing printed matter according to claim 7, or printed matter as instant claim 6 recites having a coating agent further containing 1 to 8% by weight of at least one film forming-improving agent selected from the group recited in claim 8.

### ***Response to Arguments***

Applicant's arguments filed 07-27-06 have been fully considered but they are not persuasive.

Applicant argues the printing quality on paper is impossible to obtain. Applicant has not submitted objective evidence to disprove the evidence of record.

Applicant argues Phillips does not teach an ink jet-receiving layer is provided on the portion of a printing paper on which variable information is to be printed. The rejection is a 103, reasoning that Phillips does not teach all the limitations by itself, therefore needing a secondary reference. Phillips teaches "pre-printing" on paper with lithographic print, printing is indeed on paper and in combination with Otani teaching ink receiving layers on paper to receive ink. It is indeed obvious to supply ink receiving layer(s) to arrive at the instant invention as ink receiving layers assist in absorbing the ink. See Phillips col. 1, lines 45-46, col. 2, lines 15-17 and lines 50-60, and col. 3, lines 2-5 teaching a variety of fixed and variable printed ink via hand, computers and printers such as ink jet types, and lithographically.

Applicant argues in Otani printing of fixed information by other printing method is not entirely assumed. Otani teaches ink-receiving layers are on paper to attract ink and thus improves ink absorption, which provides suggestion for the combination. Further to the methods of printing, again, the instant claims are to a product, not process, and so long as the end product is provided, the process is given little weight. How the receiver layer(s) or ink is formed are process limitations. The same order is taught in combination. Again, the card of Philips contains preprinted lithographic printing and additionally prints on the pre-printed card with ink jet ink (col. 1, lines 45-47 and col. 2, lines 50-56) to personalize the card. Otani teaches ink-receiving layers are on paper to attract ink and thus improves ink absorption, which provides suggestion for the combination.

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Applicant argues Otani does not teach two receiving layers having different ingredients respectively. Otani indeed teaches coating (claims 10 and 12) two ink receiving layers (col. 3, lines 25-28) containing cellulose, polyvinyl alcohol (col. 4, lines 14-25) (ink-absorbing additive) and cationic dye fixing agents (col. 4, lines 27-31), choosing one or more of these ingredients from the list would have been obvious to one having ordinary skill in the art dependent upon its desired end use for each ingredient/layer. "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301.), MPEP 2144.07. The test for obviousness is what the combined teachings of the prior art references would have suggested to those of ordinary skill in the art. *In re Young*, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). This test requires us to take into account not only the specific teachings of the prior art references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Applicant argues the instant technique of choosing two different ink receiving layers with different ingredients is different from Otani. Again, the argument is not convincing because Otani explicitly teaches a multilayer having more than two ink receiving layers (embraces two or more layers, col. 3, lines 20-28 ) containing a variety of ingredients as set forth above, choosing one or two is an obvious choice dependent upon the end use, for example if you want one to be colored and the other not, then you would add one colorant to one layer (suffices one ingredient) and leave the other one without colorant just made of the polymer (suffices a different ingredient). Moreover, in Otani at col. 3, lines 50-68, Otani explains pigments may be



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used individually (one ingredient) or in a mixture of two or more (different ingredient) giving examples. This explicit teaching is equivalent to Applicant's "different ingredients".

Applicant is welcomed to amend the claims to specifically recite the material instead of the function.

Applicant argues that the sequence in which the fixed information was printed, then the receiving layer was formed, however, these are processes, which are given little weight in a product claim as set forth previously. See MPEP 2113. The Examiner understands the order. The same order is provided by the combination. Philips teaches lithographically printing on paper, thereby forming the fixed information. Adding ink receiving layers on top of paper is taught by Otani for containing ink and this concept is suggested by Philips teaching the paper is printed with an ink jet printer.

All other arguments are moot in view of the Examiner's answers indicated above.

Again, the allowable claims indicated are deemed patentable.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tamra L. Dicus  
Examiner  
Art Unit 1774

January 10, 2007



RENA DYE  
SUPERVISORY PATENT EXAMINER

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